

### **REMARKS**

Reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

By this amendment, Applicants have limited independent claim 59 to a method of manufacturing beer, independent claim 91 to "beer that is resistant to light induced flavour changes" and independent claim 92 to, "A hop containing beer...". The amendments to the claims are fully-supported in the as-filed specification.

Claim 77 has been cancelled without prejudice or disclaimer.

The claims presently pending in the application are 59 – 79, 78, 79, 99 – 101.

### **REJECTION UNDER 35 USC § 102 AND § 103**

Claims 59 - 79 and claims 99 – 101 stand rejected under 35 USC § 102(b) as anticipated by or, in the alternative, under 35 USC § 103(a) as obvious over Wolf et al. (US 5,114,492). This rejection is respectfully traversed.

At page 2 of the Office Action, the Examiner observes

*Wolf et al teach a composition and process for preparing comprising preparing a caramelized carbohydrate and removing color, wherein the composition is used in foods and beverages such as beer (see entire patent, especially Figure 1) .*

Insofar as this statement implies that the Examiner holds the view that Wolf et al teaches the use of *decolorized* caramelized carbohydrate in foods and beverages, Applicants strenuously disagree with the Examiner for the following reason.

In the "FIELD OF THE INVENTION" in column 1, Wolf et al. present their invention as follows:

*The present invention relates to the separation of color solids from caramelized carbohydrate solutions by the use of ultrafiltration, and more particularly, to a continuous process for separation of these solids into a color fraction and a non-color*

*fraction with recycle of the non-color fraction to produce color bodies having an acceptable flavor for use in beverages or food.*

In other words, Wolf et al. provide a process for the production of color bodies in which a non-color fraction is generated ***and recycled within the same process*** so as to yield the color bodies. Figure 1 of Wolf et al. clearly depicts this same principle. The permeate (7) generated in the ultrafiltration unit (6) is concentrated in concentrator (20) and recycled to the pressure cooker (2) in which it is combined with make up reaction mixture.

Thus, whereas Wolf et al. teach the use of the caramel color bodies (10) generated by the process depicted in Figure 1 in beverages or food, Wolf et al. certainly ***does not teach to use the permeate (7)*** in beverages or food. Indeed, such a use goes against the general teaching of Wolf et al. which teaches the use of caramel color bodies to impart brown color to a foods and beverages (see, for instance, column 1, lines 14-16).

Thus, Applicants submit that Wolf et al. fails to teach a method of manufacturing beer that comprises the addition of decolorized caramelized carbohydrate (Claims 59-76, 78-79 and 91).

Wolf et al. teach the use of caramel colors in beer (column 1, lines 18 and 28-30). The application in beer of a caramel product obtained by the process described by Wolf et al. inevitably yields a beer having a color value of more than 25 in case substantial quantities of caramel are used or, in case relatively small quantities of caramel are used, a beverage in which the content of pyrazine derivatives (in mg/kg) is less than 0.1 xEBC color value. Consequently, the hop containing beer of present claims 92-101 is also not taught by Wolf et al.

In the event the Examiner's earlier quoted cited statement at page 2 of the Office Action should be construed as implying that the use in beer of color bodies obtained from the process taught by Wolf et al. anticipates the subject matter of the present claims, Applicants traverse the 35 USC 102(b) rejection as follows.

As explained at page 4, lines 3-7 of WO 2005/030919:

*Commercially available caramels that have been produced by caramelisation in the presence of a nitrogen source are commonly characterised on the basis of the so called extinction ratio (the absorption ratio  $A_{280/560}$ ) which is determined by the method described below under "Classification/Absorbance ratio". Typically, these caramels exhibit an absorption ratio  $A_{280/560}$  of less than 120. Decolourisation of caramels in accordance with the present invention removes coloured components that absorb at around 560 nm whilst at the same time retaining its UV-absorption characteristics. Thus, decolourisation of caramels in accordance with the invention produces a material with a significantly higher absorption ratio  $A_{280/560}$  than ordinary caramels that have been produced by caramelisation in the presence of a nitrogen source (notably ammonia caramel and sulphite ammonia caramel).*

Wolf et al. teach a process for producing ammonium sulphite caramel color, i.e. a caramel that is produced in the presence of a nitrogen source. The fact that commercially available ammonium sulphite caramels have an  $A_{280/560}$  ratio that is well below 200 is substantiated by the attached COMMISSION DIRECTIVE 94/95/EC that defines specific purity criteria concerning colours for use in foodstuffs within the European Community. This directive specifies that sulphite ammonia caramel must have an Absorbance ratio  $A_{280/560}$  of not more than 50 (page 24).

Hence, Applicants submit that the use in beer of the ammonium sulphite caramel colors of Wolf et al. is not within scope of the present claims. In other words, Applicants hold to the view that the claimed invention cannot be said to be anticipated by Wolf et al. Since the claims clearly distinguish over Wolf et al. by a preponderance of the evidence withdrawal of the §102(b) rejection is in order and is solicited.

Turning to the alternative rejection under § 103(a), as explained herein previously, Wolf et al. is exclusively concerned with the production of caramel color bodies and the use of these to impart a brown color to foods and beverages. Wolf et al. provide **"a continuous process for separating the essential constituents (color bodies) or caramel color from the residual carbohydrates (non-color bodies) and to provide for the recycle of the latter so as to utilize essentially all of the carbohydrate for**

**production of color without the detrimental mercaptan flavour normally associated with recycle and recaramelization of the non-color bodies"** (column 2, lines 15-22).

As explained at column 2, lines 23-32 of Wolf et al. the process provided therein recaramelizes the residual carbohydrate (noncolor bodies) recovered from the separation steps to produce addition color bodies. No other uses for these noncolor bodies are suggested by Wolf et al., let alone is their any suggestion therein whatsoever that it might be beneficial to use such noncolor bodies in beer.

Furthermore, Applicants fail to see why a person of ordinary skill in the art would have wanted to modify the ammonium sulphite caramel color taught by Wolf et al. in such a way that the absorption ratio  $A_{280/560}$  would increase from a typical value of not more than 50 to a value of at least 200 as is required by present claims 59-76, 78-79 and 91. Likewise, Applicants fail to see why a person of ordinary skill would have wanted to modify the caramel color bodies taught by Wolf et al. in such a way that it might be employed in beer to achieve a concentration of pyrazine derivatives as defined in claim 92 of at least 0.5% by weight of dry matter whilst not raising the EBC color value to 25 or more.

Hence, Applicants submit that the amended claims clearly distinguish over the teachings of Wolf et al. Since the Examiner has failed to establish a *prima facie* case of obviousness by a preponderance of the evidence, the § 103(a) rejection is deemed to have been overcome and its withdrawal is respectfully solicited.

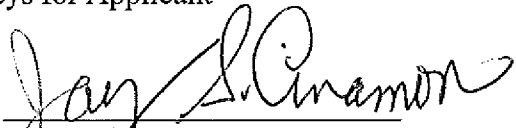
The issuance of a Notice of Allowance is in order and is respectfully solicited.

Please charge any fees which may be due to our Deposit Account No. 01-0035.

Respectfully submitted,

ABELMAN, FRAYNE & SCHWAB  
Attorneys for Applicant

By

  
Jay S. Cinnamon  
Attorney for Applicant  
Reg. No. 24,156

666 Third Avenue  
New York, NY 10017-5621  
Tel.: (212) 949-9022  
Fax: (212) 949-9190